

sub 1
B¹

1. (Twice Amended) A method of seeking admission to a computer network, comprising:
2 listening, at a first [network device] which is not a current component of the computer
3 network, to a communication channel communicatively coupling two or more current
4 components of the computer network; and
5 transmitting, from the first [network] device, a connection request to a controller of the
6 computer network within a designated time slot of the communication channel.

B² sub 3

1. (Twice Amended) A method of seeking admission to a computer network, comprising:
2 determining, at a first [network] device which is not a current component of the computer
3 network, whether a communication channel used for communicatively coupling two or more
4 current components of the computer network is actively being utilized by the current components
5 of the computer network; and
6 transmitting, from the first [network] device, a message within the communication channel
7 at a time (depending upon whether the communication channel is actively being utilized or not).

REMARKS

Reconsideration of this application, as amended, under Rule 116 is respectfully requested. The informalities in the drawings are noted and corrected drawings will be filed upon an indication of allowability of the application.

In response to the rejection of the claims under 35 U.S.C. 112, second paragraph, claims 1-8 have been amended to delete the term "network". These amendments should now make it clear that the components or devices recited in the claims are (at least initially) distinct from existing components of a computer network. Thus, the rejections of these claims have been obviated.

With respect to claims 12, 16 and 27, the language complained of in the rejection is simply not found in any of these claims. Claim 12 clearly recites a component that is not a

component of a certain computer network. Similar language is found in claim 27. Accordingly, the rejections of these claims is traversed on the grounds that the rejections are inapplicable to these claims and the claim language clearly recites the subject of the invention.

The present claims are patentable over the cited references as follows. Borgstahl, U.S. Patent 5,909,183, describes a network wherein peer nodes listen to a channel and, periodically, initiate unsolicited connection attempts with other peer nodes. When these attempts are successful, negotiations take place to determine if a connection between the peers will be established or not, according to the needs and capabilities of the peer nodes. When a peer node receives a connection request, it initiates this negotiation process, otherwise the peer node executes a loop until a connection is established or attempted. See Borgstahl at Figure 6 and the accompanying text describing same.

The process described by Borgstahl is subtlety different from the claimed methods. For example, with respect to claim 1 and its dependent claims, the peer nodes of Borgstahl do not transmit their unsolicited connection attempts at designated time slots of a communication channel. Instead, the Borgstahl connection attempts are transmitted according to a timer or other periodic indicator. See col. 7, ll. 11-22. For at least these reasons, claim 1 and its dependent claims are patentable over Borgstahl.

Likewise claim 7 and its dependent claims are patentable over Borgstahl. Claim 7 recites a method wherein transmissions occur within a channel depending upon whether the channel is being actively utilized at that time. Such timing considerations are lacking from the Borgstahl teachings and, consequently, these claims are patentable over Borgstahl.

As to claim 12 and its dependent claims, although Borgstahl does describe a negotiation process, the reference makes no mention of that process involving a negotiation of bandwidth requirements within a communication channel. Instead, the needs and capabilities of two peer nodes are compared and a connection is established or not established on the basis of that

comparison. Consequently, because there is no teaching or suggestion of the recited subject matter of the claims, these claims are patentable over Borgstahl.

As to claim 27, Borgstahl provides no teaching or suggestion of a communication scheme wherein a communication channel is organized with a “quiet time slot” for use by components not previously associated with the computer network. Therefore, claim 27 and its dependent claims are patentable over Borgstahl.

Adding the teachings of Altwater, U.S. Patent 5,889,771, to those of Borgstahl do not cure the above noted deficiencies. Altwater describes a scheme wherein a node of a computer network transmits data in unoccupied frequency channels of a communication channel when the node has data to send. However, above it was noted that claim 1 describes a scheme wherein connection requests are transmitted in designated time slots, not frequency slots. Therefore, claim 1 and its dependent claims are patentable over the combination of Borgstahl and Altwater.

Likewise, claim 7 and its dependent claims are patentable over this combination of references because like claim 1, claim 7 recites timing (and not frequency) characteristics of the channel that determine whether or not transmissions are made.

As for claim 12 and its dependent claims, Altwater does not teach or suggest the negotiation of bandwidth requirements as recited in the claim and therefore fails to cure the underlying deficiencies of Borgstahl noted above.

With respect to claim 27 and its dependent claims, Altwater does not describe a scheme wherein a designated “quiet time slot” is included in the communication channel. Instead, Altwater describes a frequency hopping scheme wherein nodes transmit in unoccupied frequency channels (not in designated quiet times). Consequently, the combination of Borgstahl and Altwater fail to teach elements of the claims and therefore these claims are patentable over the combination of the references.

Mosebrook et al., U.S. Patent No. 5,905,442 fails to teach or suggest a scheme wherein devices which are not current components of a network may become components of such a

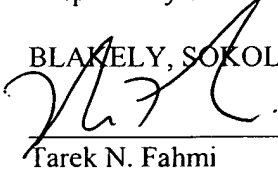
network through the use of connection requests and the like. Mosebrook describes a scheme wherein various electrical devices such as those used for controlling electric lights are communicatively coupled to a central controller through an RF communication link. However, it is apparent from Mosebrook's description at col. 18, ll. 8-26 that adding new components to such a network can only be done manually by user using an "install mode" at the controller. Mosebrook provides no means for allowing devices which are not current components of a network to become such components by listening to communications occurring within the network and then transmitting connection requests or similar requests to the central controller as recited in the present claims.

Furthermore, this deficiency is not cured when one considers the teachings of Barrett et al., U.S. Patent No. 5,699,532. Barrett describes a multi-path channel interfaces for computer input-output systems, that fails to discuss transmission of connection requests for components which were not current parts of such computer systems. Indeed, it is noted that original claim 27 included the limitation of the use of a quiet time slot for use by "new network components" but the rejections set forth in the office action, and in particular at paragraph 10 thereof, completely fail to deal with this feature of the present invention. Therefore, because the present claims recite features not found in either of these cited references, the present claims are neither anticipated by nor rendered obvious by these references whether considered alone or in combination.

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Respectfully submitted,

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